the NEWEST

and the BEST MATERIAL

for it

AMERICAN CLAY PRODUCTS COMPANY

16865 #45

Denison Interlocking Tile

Manufactured by

American Clay Products Co., Inc.

Manufacturers of

Denison Interlocking Tile

Building Blocks of every description, Fireproofing, Sewer Pipe, Flue Lining, Wall Coping, Vitrified Electrical Conduits and other Clay Products.

General Office:

175 FIFTH AVENUE, - NEW YORK

Works and Clay Banks; SOUTH RIVER, N. J.

SHIPMENTS BY RAIL OR WATER.

THE WARNER - MILLER CO.

Sole Agents for New England

NEW HAVEN, CONN.

To Architects, Contractors and Home Builders.

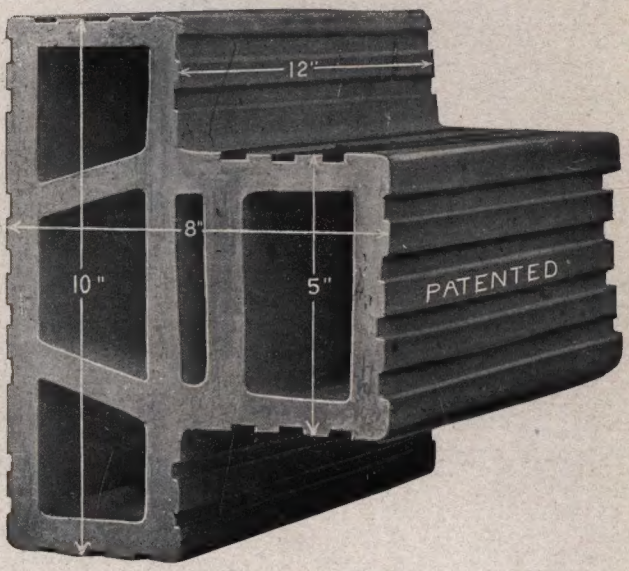
THE advantages and merits of Terra Cotta Hollow Tile for outside walls of buildings in the place of frame, brick or other form of construction we feel are fully appreciated by all who are interested in, or who have investigated the subject.

The superiority of Hollow Tile has been so completely demonstrated by actual use the past few years, and the subject has been so thoroughly presented through trade literature and otherwise, that little, if anything, further can be said. For that reason we will not burden the reader with a repetition of facts and figures he is undoubtedly familiar with.

The tremendous increase in the use of Hollow Tile for outside wall construction has been the incentive to manufacturers of Hollow Tile to improve their Product—to create a tile of greater utility than the forms heretofore manufactured. This ambitious rivalry has led to the invention and development of the Denison Interlocking Tile, the superiority of which over every other form of Hollow Tile on the market, we present in the following pages.

AMERICAN CLAY PRODUCTS CO., Inc.

The Denison Interlocking Tile for Wall Construction.



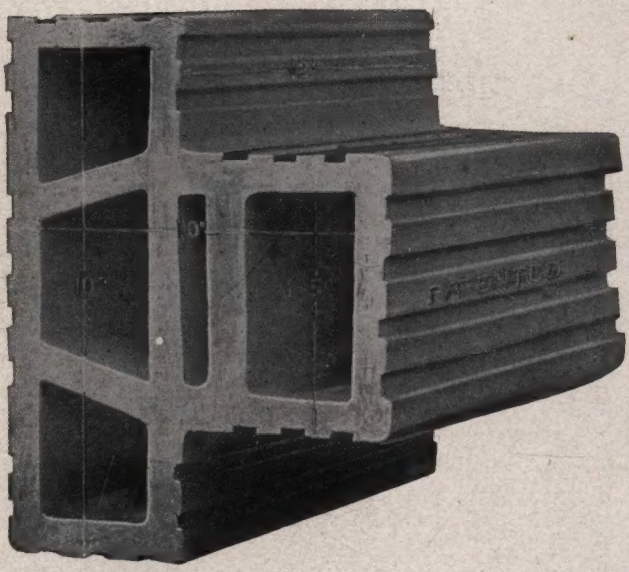
The Denison Tile.

This size Tile builds all desirable thicknesses of walls—8 inch, 12 inch, 16 inch, 20 inch, and 24 inch.

It is equivalent to ten common brick and is readily adapted to any kind of brick bond.

As indicated in illustration, the Tile are manufactured 12 inches long with a percentage of 4 inch, 6 inch, and 8 inch lengths, furnishing a proper size for every closure; avoiding the necessity of cutting and the consequent waste of material and loss of time.

Denison Tile being a multiple of common brick, is adaptable for use wherever plans are drawn for brick construction. As the dimensions of most plans are based on the size of common brick, this advantage will be appreciated by Architects and Builders.

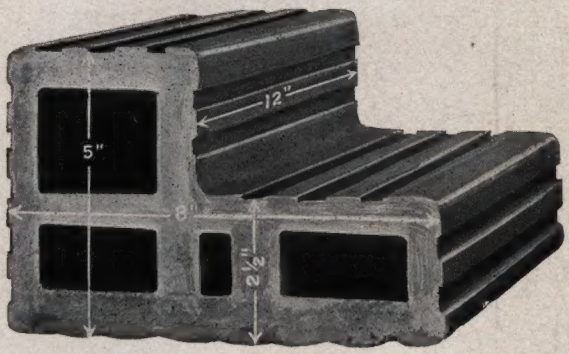


The Special Denison Tile.

To meet special requirements, we manufacture a Special Denison Tile for laying up a 10 inch wall. The dimensions of the Special Denison Tile, as will be noticed by comparing the illustrations, conform to those of the Denison Tile with the exception that the thickness is 10 inches instead of 8 inches.

This Special Tile is particularly adapted for the construction of a 16 inch wall as will be noted by reference to illustration of 16 inch wall on Page 11 of catalog.

This size Tile is equivalent to 12 common brick and is adapted to all kinds of brick bond as readily as the Denison Tile.



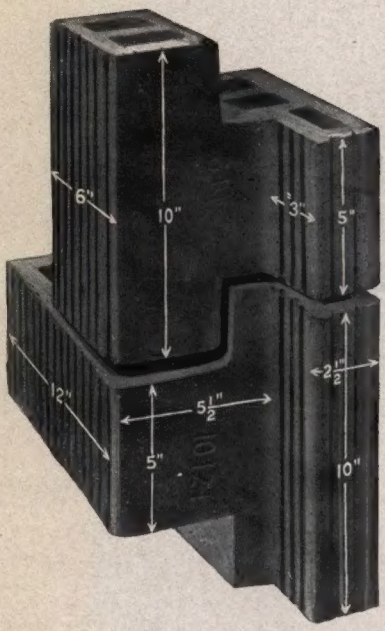
Starting and Finishing Tile.

It has been our aim to minimize as much as possible the labor, and facilitate the construction, and, with that end in view, we have designed a Starting and Finishing Tile, as illustrated.

This Tile is used for starting the wall, also, for leveling off when finishing or topping out the wall.

This Tile is one-half the size of the full Tile and replaces 5 common brick in the wall.

A percentage of cuts, or short lengths, are furnished to avoid the expense and delay of cutting and fitting. These are, also, furnished for use with the Special Size Denison Tile.



Jamb for 8 inch wall.

The opposite illustration shows the method of laying the Jamb Tile in a 12 inch Wall.

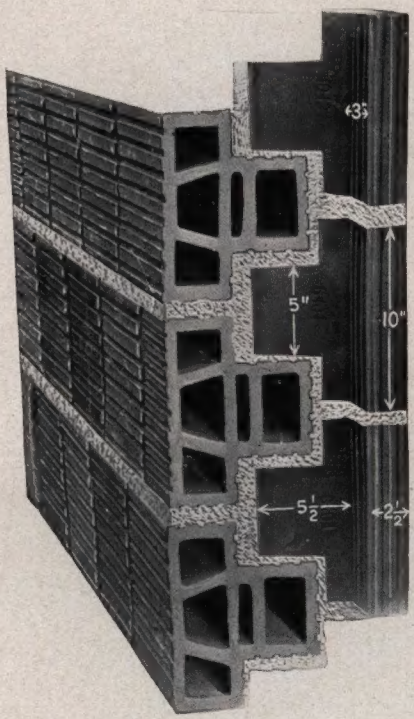
Jamb Tile for doors, casement, windows, etc. are manufactured without the lip or lug.

These Jambs are also furnished for use with the Special Denison Tile.

Window Jamb Tile.

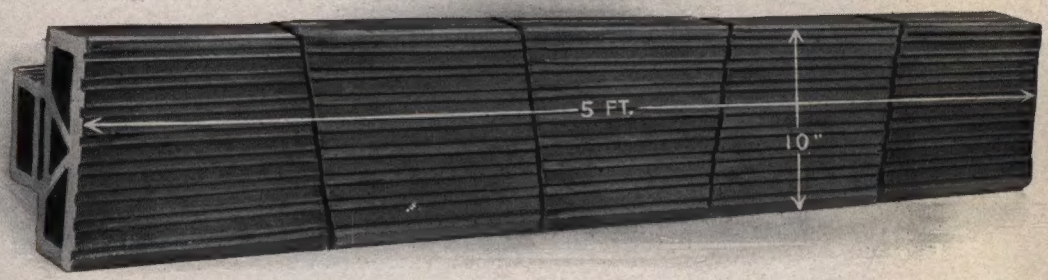
The illustration shows the method of laying in an 8 inch wall.

The dimensions of the Jamb are the same as the Denison Tile, excepting every other Jamb Tile is furnished 6 inches long to break the bond.



Jamb for 12 inch wall.

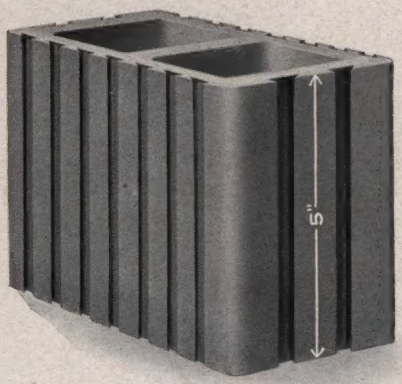
Lintel Tile.



The Denison Tile Lintels are manufactured for both sizes of Denison Tile and are cut to form a flat arch.

Their construction makes them suitable for openings up to six feet without reinforcement. For wider openings we recommend the Denison Tile Lintel be reinforced with concrete. While this may not be necessary, it is a safe precaution at slightly increased cost.

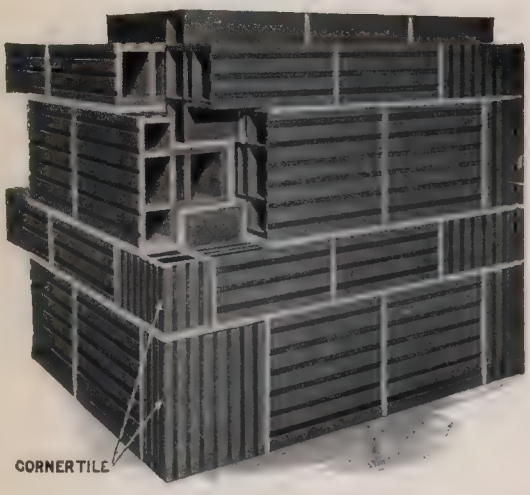
Corner Tile.



For use with Denison Tile

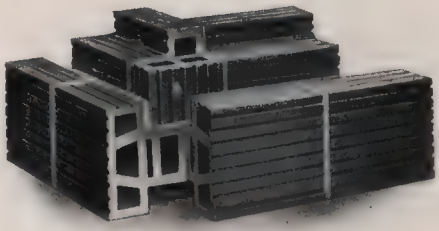
5" x 8" x 4" Corner Tile and
10" x 8" x 4" " "

These are laid 5 inch and 10 inch, alternately as indicated in illustration in an 8 inch Wall. (See following page).



As used in 8 inch wall.

In the 12 inch Wall the 10 inch corner Tile are used on the outside, the 5 inch Tile on the inside, as shown in illustrations below.

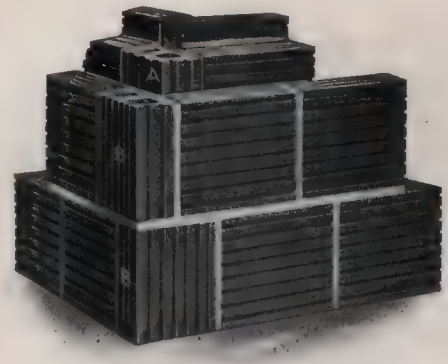


First Course in 12 inch wall.

For use with Special Size Denison Tile.

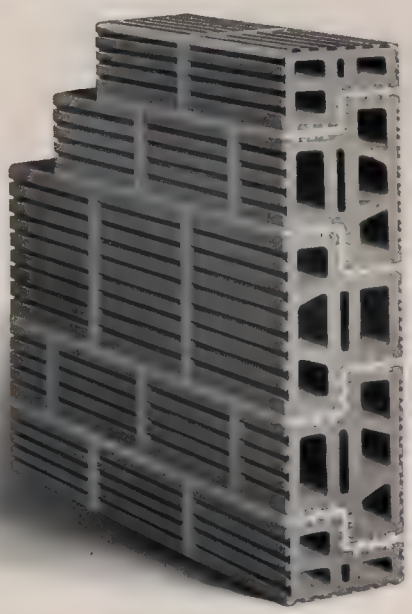
5" x 10" x 5" Corner Tile
and
10" x 10" x 5" " "

Corners in a 10 inch Wall are laid up exactly as in the 8 inch Wall, and the Corner in a 16 inch Wall the same as in the 12 inch Wall.



Second Course in 12 in. wall.

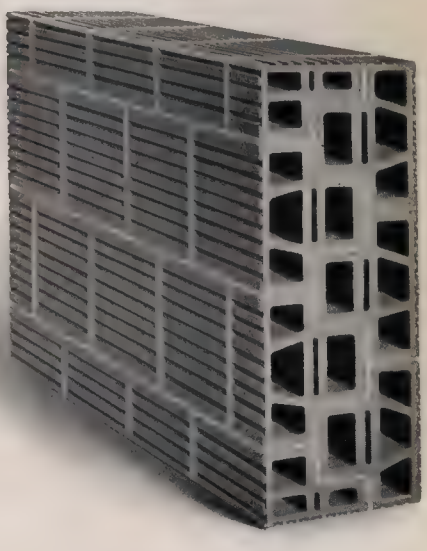
Bonds Used for Walls of Different Thicknesses.



Eight Inch Wall

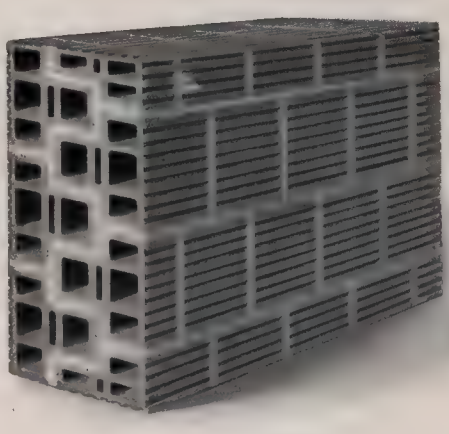
Note how Starting Brick is used in construction of an 8 inch and 12 inch wall.

The 16 inch wall as illustrated is laid up with the Special Size Denison Tile and special attention is called to the fact that the construction is identical to the 12 inch wall construction where the ordinary Denison Tile are used. The construction of a 10 inch wall of Special Size Denison Tile is similar to the 8 inch wall above illustrated.

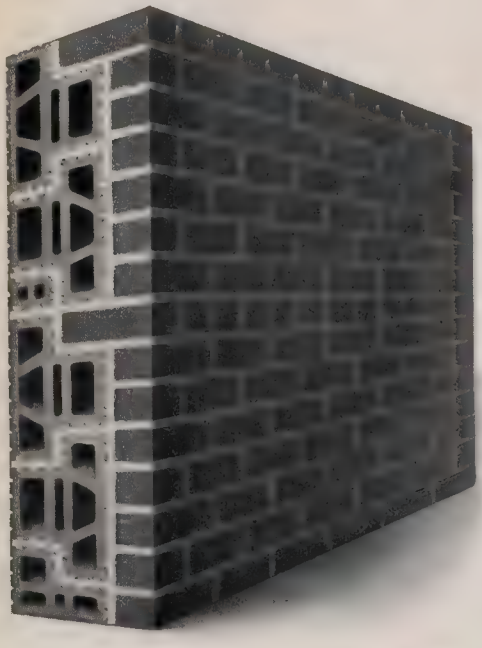


Twelve Inch Wall

The illustration below of Brick Veneered Wall shows a header every seventh course and allows for each Brick and one Joint — $2\frac{3}{4}$ inch, or 4 courses to each 11 inches. Bonds, however can be worked out to accommodate varying thicknesses of Brick.



Sixteen Inch Wall



Wall Faced with Pressed or Common Brick

Particular attention is called to the illustrations and the fact that all the strength giving webs — the upright or vertical webs — are one above the other in all thicknesses of wall. The strength of the individual block is thus maintained and is not reduced or weakened when laid in the wall.

Special Advantages of Denison Interlocking Tile.

A stronger Wall than any other form of Hollow Tile.

More economical in cost of construction.

They have 126 square inches of Mortar bond to each Tile in an 8 inch Wall.

In laying—the Tile find their bed at once, and remain in position.

The Shape of the Tile insures a plumb wall—they cannot slide or slip out of position.

The same Tile builds all thicknesses of wall rendering unnecessary the annoyance of a different size Tile for each thickness of wall.

Thoroughly Bonded and Interlocked.

Moisture, Sound, and Vermin proof.

Thoroughly insulated against weather conditions—the air in the Tile being "dead" or non-circulating.

No Furring required.

The above advantages are mentioned in comparison with other forms of Hollow Tile. The superiority of Hollow Tile in general to frame or Brick construction we feel assured is too well known to refer to here.

Fire Test.

Fire Test of Denison Interlocking Tile held at Cleveland, Ohio, January 11th, 1911, by order of the Cleveland Building Department.

The Department required that the test be made with a loaded wall. The Test House was 9 ft. 6 in. x 10 ft. 3 in. x 8 ft. 9 in. high—outside dimensions. At one end an opening of 2 ft. x 2 ft. 6 in. was left for firing, which was properly closed while test was under way.

Interior face of wall 2000°, Exterior Cold

The Building was under fire for about 40 minutes as will be noted from pyrometer readings below:

Time	Top Pyrometer Deg. Fahr.	Bottom Pyrometer Deg. Fahr.	Diff. of Time	Variation of Temp. Top and Bottom. Deg. Fahr.
3:19 P. M.	Fire started, opening closed.			
3:23 P. M.	825	425	4 Minutes	400
3:25 P. M.	1175	425	2 Minutes	750
3:26 P. M.	1225	475	1 Minutes	750
3:28 P. M.	1350	600	2 Minutes	750
3:29 P. M.	1400	675	1 Minutes	725
3:30 P. M.	1425	750	1 Minutes	675
3:31 P. M.	1500	775	1 Minutes	725
3:33 P. M.	1550	850	2 Minutes	700
3:35 P. M.	1625	900	2 Minutes	725
3:37 P. M.	1625	955	2 Minutes	670
3:39 P. M.	1650	1025	2 Minutes	625
3:40 P. M.	1700	1100	1 Minutes	600
3:42 P. M.	1700	1200	2 Minutes	500
3:44 P. M.	1725	1240	2 Minutes	485
3:45 P. M.	1750	1275	1 Minutes	475
3:47 P. M.	1760	1325	2 Minutes	435
3:50 P. M.	Top	1475	3 Minutes	
3:53 P. M.	Pyrometer	1500	3 Minutes	
3:56 P. M.	Out of	1525	3 Minutes	
4:02 P. M.	Order	1600	6 Minutes	
4:03 P. M.	Water turned on 15 feet distant and fire quenched.			

Hose 2½ inches in diameter. Nozzle 1⅛ inches tip.

The top pyrometer failed to record the last four readings and inasmuch as the difference in the temperature between top and bottom pyrometers was over 400° at all readings, it was conceded the temperature at completion of test was over 2000° Fahrenheit.

The walls were 12 in. thick, plastered on inside with lime and sand plaster ¼ in. thick. The beds and joints were laid up in lime mortar in which a little cement was mixed. The roof was of No. 26 gauge sheet iron laid on steel rods spaced 12 in. apart, the ends of which were bedded in about 12 in. of concrete 3 in. thick, which formed a coping on top of walls.

An opening 36 in. x 36 in. was left in top of roof and a tunnel under Test House to secure effective draft for the fire, completed the Building.

Two pyrometers were used for recording the temperature.

The walls were loaded with about 4066# of pig iron per running foot (the walls being 12 in. thick, this equalled per square foot). On January 11th, 1911, after the completion of test, the rear wall of the Test House was loaded with additional pig iron to a weight of about 9487# per running or square foot without any evidence of crushing or cracking.

During the test it was particularly noticed that the outside of wall did not even warm but remained cool and there was no warping, settlement, or cracking, of any kind. The plaster on inside of walls burned completely off, but the Denison Tile was not damaged.

To more thoroughly examine the condition of the Denison Tile, a hole was punched through the rear wall (where the water came in contact with the heated tile) and the entire tile section was found to be absolutely undamaged.

The result of this test shows the Fireproofing qualities of the tile and proves beyond the question of a doubt, the superiority of Denison Tile as an insulator.

The above test was made under the direction and supervision of the Inspector of Buildings of the City of Cleveland and was witnessed by the Fire Chiefs of eight Ohio Cities, and other prominent gentlemen.

General Information.

	1000 Denison Tile will equal, when laid in the Wall, 10,000 Common Brick.
8 Inch Wall.	1000 Denison Tile will lay up 730 square feet of Wall Surface in an 8 in. wall—½ in. mortar joint.
12 Inch Wall.	1000 Denison Tile will lay up 500 square feet of Wall Surface in a 12 in. wall—½ in. mortar joint.
16 Inch Wall.	1000 Denison Tile will lay up 365 square feet of Wall Surface in a 16 in. wall—½ in. mortar joint.
20 Inch Wall.	1000 Denison Tile will lay up 275 square feet of Wall Surface in a 20 in. wall—½ in. mortar joint.
	1000 Denison Tile will lay up 500 cubic feet in Wall of any thickness.
Starting and Finishing Tile.	Two (2) Tile are required for each Running foot of Wall-One (1) Tile for starting and one (1) for finishing.
Jamb Tile.	Refer to illustrations on page 7.
Corner Tile.	Refer to illustrations on pages 8 and 9.

Special Denison Tile.

	1000 Special Denison Tile will equal when laid in Wall 12000 Common Brick.
10 Inch Wall.	Same as 8 in. Wall above.
16 Inch Wall.	Same as 12 in. Wall above.

The following is a list of a few of the prominent Buildings erected with Denison Interlocking Tile.

Brown Estate, Huntington, N. Y.
CLARENCE LUCE, Architect.

Johnson Estate, Cold Spring Harbor, N. Y.
WILLAUER, SHAPE, & BREADY, Architects.

Childrens' Aid Society Hospital, Coney Island, N. Y.
EDW. PIERCE CASEY, Architect.

St. John's Guild Hospital, New Dorp, N. Y.
EDW. PIERCE CASEY, Architect.

Garver Estate, Oyster Bay, N. Y.
STEPHENSON & WHEELER, Architects.

Kenyon Estate, Poughkeepsie, N. Y.
P. M. LLOYD, Architect.

Residences Spuyten Duyvil, N. Y.
ROBERT GARDNER, Architect.

Residences at Neponsit, N. Y.
KIRBY & PETTIT, Architects.

Residence, Ridgewood, N. J.
TRACY, SWARTWOUT & LITCHFIELD, Architects.

Public School, Long Branch, N. J.
HENRY C. PELTON, Architect.

Public School, West Orange, N. J.
DILLON, MCLELLAN & BEADEL, Architects.

Public School, Hilton, N. J.
D'Oench & Yost, Architects.

State Hospital & Home, Morris Plains, N. J.
Geo. Drew, State Architect for New Jersey.
F. Bent, Ass't State Architect for New Jersey.

Hospital Buildings, Pleasantville, N. Y.
Jacobs & Heidelberg, Architects.

Hotel Statler, Cleveland, Ohio.
Geo. B. Post & Son, Architects.

Railroad Stations and Buildings for N. Y. N. H. & H. R. R. Co.
Bethel, Conn., Tremont, Mass., Springfield, Mass.,
Oak Point, N. Y.

State Hospital, Norwich, Conn.
Cadworth & Woodworth, Architects.

City Hospital, Poughkeepsie, N. Y.
Parish & Schroeder, Architects.

City Hospital, New London, Conn.
Martin & Hall, Architects.

State Armory, Torrington, Conn.
State Armory, Bradford, Conn.
Chas. S. Palmer, Architect.

School—Stokes Hall, Canaan, Conn.
Harding & Seaver, Architects.

City School, Glenbrook, Conn.
Henry Marvin, Architect.

City School, West Suffield, Conn.
WHITON & MCMAHON, Architects.

City School, Lenoxdale, Mass.
J. C. GREENLEAF, Architect.

Office Building, New Haven, Conn.
BROWN & VAN BEREN, Architects.

Office Building, Lenox, Mass.
HARDING & SEAVER, Architects.

Office Building, Fall River, Mass.
J. M. DARLING, Architect.

Apartment House, Bridgeport, Conn.
J. W. NORTHROP, Architect.

Apartment House, Bridgeport, Conn.
W. E. HOGAN, Architect.

Apartment House, Bridgeport, Conn.
SKINNER & WALKER, Architects.

Apartment House, Providence, R. I.
F. W. WOODS, Architect.

Apartment House, Pittsfield, Mass.
HARDING & SEAVER, Architects.

Residences, Central Valley, N. Y., and Dalton, Mass.
E. S. CHILDS, Architect.

Residences, Jersey City and Weehawken, N. J.
E. W. GRANERT, Architect.

Church, Long Beach, N. Y.
REILLY & STEINBACH, Architects.

GIBBS & VAN VLECK
MODERN PRINTERS
TWENTY SIX
CITY HALL PLACE
NEW YORK